We claim:

1. A double crucible for a glass drawing process, said double crucible comprising

a heatable outer crucible;

an inner crucible surrounded by the outer crucible, said inner crucible being heatable separately from the outer crucible; and

wherein the outer crucible has an outlet nozzle, the inner crucible has an outlet nozzle, the outlet nozzle of the inner crucible projects or extends beyond the outlet nozzle of the outer crucible.

2. The double crucible as defined in claim 1, wherein said inner crucible and said outer crucible comprise a platinum/iridium alloy.

3. The double crucible as defined in claim 1, further comprising gold or a gold alloy and wherein surfaces of said inner crucible and said outer crucible contacting a glass melt are provided on said gold or gold alloy.

4. The double crucible as defined in claim 3, wherein said gold alloy is a platinum/gold alloy with about a 5 percent by weight gold content.

5. The double crucible as defined in claim 1, wherein said outer crucible comprises an electrically insulating material and the inner crucible comprises an electrically conductive material heatable by an electromagnetic field.

6. The double crucible as defined in claim 5, wherein said electrically insulating material is a ceramic material.

7. The double crucible as defined in claim 1, wherein said outer crucible (1',1") comprises an at least partially electrically conductive material and the inner crucible (2) comprises an electrically conductive material.

8. The double crucible as defined in claim 7, wherein said outer crucible is formed by a slotted metal crucible.

9. The double crucible as defined in claim 7, wherein said outer crucible is a quartz glass crucible with a metal layer thereon.

10. The double crucible as defined in claim 7, wherein said outer crucible is a cooled skull crucible (1') with a palisade of metallic tubing.

11. The double crucible as defined in claim 7, wherein said outer crucible has a closed jacket made from an electrically conductive material, to which an MF/HF coil is associated for heating, and said inner crucible is a double-walled crucible

that is connectable to a current source, so that a current may be passed through said double-walled crucible for heating.

12. The double crucible as defined in claim 11, wherein the double-walled crucible has a conductive interior wall (2") and a conductive exterior wall (2') with insulating material filling an intervening space between said conductive interior wall (2") and said conductive exterior wall (2').

13. The double crucible as defined in claim 12, wherein said interior wall and said exterior wall have respective different wall thickness values in different regions for controlling heating in said different regions.

14. The double crucible as defined in claim 12, further comprising a temperature sensor arranged in said intervening space between said interior wall and said exterior wall.

15. A method of making a glass fiber or preform for said glass fiber with a double crucible, said glass fiber or said preform comprising a core and at least one coating, and

wherein said double crucible comprises a heatable outer crucible and an inner crucible surrounded by the outer crucible, said inner crucible being heatable separately from the outer crucible, the outer crucible has an outlet nozzle, the inner crucible has an outlet nozzle, the outlet nozzle of the inner

crucible projects or extends beyond the outlet nozzle of the outer crucible; said method comprising the steps of:

a) melting a portion of heavy metal oxide glass for the core glass of the glass fiber and another portion of the bismuth oxide glass for the cladding glass in separate gold crucibles from a glass batch in a pre-melting step to form separate glass melts;

b) bubbling oxygen through the separate glass melts;

c) pre-heating the double crucible and pouring the separate glass melts into the pre-heated double crucible, with the glass melt for the core glass in the inner crucible and the glass melt for the cladding glass in the outer crucible;

d) holding the glass melts at a predetermined temperature with said oxygen bubbling through the glass melts for a predetermined time interval;

e) increasing the temperature and refining of the glass melts and optionally passing oxygen over the glass melt;

f) tempering the glass melts so that the glass melts reach a glass drawing temperature; and

g) after the tempering of step f), drawing the glass fiber or preform from the glass melts.

16. The method as defined in claim 15, wherein said heavy metal oxide glass is a glass containing at least one of Bi, Sb, Te, Se, As, Cd, Ga and Pb oxide.

17. The method as defined in claim 15, further comprising drawing a coating jacket for the glass fiber drawn from the double crucible from a heavy metal oxide glass melt in a discharge crucible, preparing said heavy metal oxide glass melt in a separate melting step in a gold crucible from a melted glass batch with intensive oxygen bubbling and pouring the heavy metal oxide glass melt into the discharge crucible.

18. The method as defined in claim 15, wherein said glass batch comprises nanoscale raw materials.

19. The method as defined in claim 15, wherein the raw materials of the glass batch comprises raw materials mixed in equal composition and are burned in a pre-reaction in a first step.

20. The method as defined in claim 15, further comprising controlling said drawing according to a diameter of the glass fiber, controlling drawing speed during the drawing of the glass fiber with a first time constant and controlling crucible temperature with a second time constant and wherein said second time constant is longer than said first time constant.

21. A method of making a glass fiber or preform for said glass fiber with a double crucible, said glass fiber or said preform comprising a core and at least one coating, and wherein said double crucible comprises an outer crucible and an

inner crucible surrounded by the outer crucible, said inner crucible being heatable separately from the outer crucible, the outer crucible having an outlet nozzle and the inner crucible having an outlet nozzle, and

wherein the outlet nozzle of the inner crucible projects or extends beyond an outlet of the outlet nozzle of the outer crucible, and

wherein at least glass of the at least one coating has a steep viscosity curve and/or a high density.